

CLAIMS

1. A compressor wheel assembly comprising a compressor wheel mounted to a rotating shaft, wherein the shaft extends through a bore provided along the rotational axis of the wheel, and the wheel is keyed to the shaft such that rotation of the shaft drives rotation of the wheel through the keying engagement.
2. A compressor wheel assembly according to claim 1, wherein the wheel is retained on the shaft by a nut which threads on one end of the shaft and bears directly or indirectly against a nose portion of the wheel to clamp the wheel against an abutment and therefore prevent axial movement of the wheel along the shaft.
3. A compressor wheel assembly according to claim 2, wherein the wheel is indirectly keyed to the shaft via a keying member which interengages keying formations provided on the wheel and the shaft.
4. A compressor wheel assembly according to claim 3, wherein the keying member is a drive washer having an inner aperture to receive said shaft and which is disposed around said shaft between the nut and the wheel, the drive washer having inner and outer keying formations which engage the shaft and wheel keying formations respectively.
5. A compressor wheel assembly according to claim 4, wherein the shaft keying formations comprise one or more flat portions provided in the circumference of the shaft, and the inner keying formations of the drive washer comprise linear portions of the washer aperture.
6. A compressor wheel assembly according to claim 4 or claim 5, wherein the wheel keying formations comprise recesses extending radially into the wheel and the outer keying formations of the drive washer comprise radial projections which engage in said recesses.

7. A compressor wheel assembly according to claim 1, provided with a plurality of keying formations on the compressor wheel and/or shaft allowing indexing of the relative angular position of the wheel on the shaft to aid wheel balancing.
8. A compressor wheel assembly according to claim 3, wherein the keying member is provided with a plurality of inner and/or outer keying formations to enable indexing of the rotational position of the wheel relative to the shaft to aid in wheel balancing.
9. A compressor wheel assembly according to claim 4, wherein the nose portion of the compressor wheel is countersunk to receive said drive washer.
10. A turbocharger comprising a compressor wheel assembly comprising a compressor wheel mounted to a rotating shaft, wherein the shaft extends through a bore provided along the rotational axis of the wheel, and the wheel is keyed to the shaft such that rotation of the shaft drives rotation of the wheel through the keying engagement.